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TASK MANAGEMENT SYSTEM

USING C PROGRAMING

submitted to
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Abstract

This project aims to design and implement a task management system with user authentication functionalities. The system provides users the ability to sign up, log in, add tasks, view tasks for a specific date, delete their account, and exit the system. The user data is stored in "signup.txt," and task details are stored in "tasks.txt." The implementation is in C programming language, providing a console-based interface.

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Introduction

Task management systems play a crucial role in organizing and tracking activities. This project addresses the need for a simple yet effective task management system that requires user authentication. The system offers features such as sign up, login, task addition, task viewing, account deletion, and program termination.

System Design

The system consists of two main files for data storage: **"signup.txt"** to store user credentials and **"tasks.txt"** to store task details. The primary functionalities are encapsulated in functions like **signUp**, **login**, **addTask**, **viewTasks**, and **deleteAccount**. The main program orchestrates user interaction through a menu-based approach.

Functionality

- **Sign Up:**
    1. Users can sign up by providing a unique username and a password.
    2. The system checks for existing usernames in "signup.txt" to ensure uniqueness.

- **Login:**
    1. Users must log in with their username and password.
    2. Credentials are verified against data in "signup.txt."
    3. Upon successful login, users access additional functionalities.

- **Add Tasks:**
    1. After login, users can add tasks by specifying the date and task description.
    2. Task details are stored in "tasks.txt" in a predefined format.

- **View Tasks:**
    1. Users can view tasks for a specific date after selecting the corresponding option.
    2. The system searches "tasks.txt" for tasks matching the user and date.
    3. Results are displayed in the console, or a message indicates no tasks found.

- **Delete Account:**
    1. Users can permanently remove their account by providing their username and password.
    2. The system deletes the user's information from "signup.txt" or stores it in a temporary file.

- **Exit:**
    1. Users can exit the program at any point.

Implementation

The implementation is in the C programming language, using file handling to store user credentials and task details. The main program controls the flow of execution, calling functions as needed for different functionalities. The code structure promotes modularity, making it easy to maintain and understand.

Conclusion

This project presents a basic yet functional task management system with user authentication. It fulfills the specified requirements, allowing users to sign up, log in, manage tasks, and delete their accounts. The system provides a foundation that can be extended for more advanced features and user interfaces in future iterations.

Acknowledgments

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References

[1]	C Standard Library Documentation	**:**	https://en.cppreference.com/w/c/header
[2]	C Structures	**:**	https://www.w3schools.com/c/c_structs.php
[3]	C Pointers	**:**	https://www.w3schools.com/c/c_pointers.php
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Project Repository

The source code for this project can be found at **https://github.com/therafsanrohan/TMS-using-C.git**